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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,661	07/20/2001	Vishnu K. Agarwal	500431.04	3239

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EXAMINER

GOUDREAU, GEORGE A

ART UNIT PAPER NUMBER

1763

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

C9-910661

Applicant(s)

Hajmural

Examiner

George Goudreau

Group Art Unit

1763

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 4-14-03 (ie. paper # 19)

☒ This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 68-72, 78-79, 81-89 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 68-72, 78-79, 81-89 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 68-72, 78-79, and 81-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied in paragraph 16 of the previous office action.

The references as applied in paragraph 16 of the previous office fail to disclose the following aspects of applicant's claimed invention:

-the specific usage of automatic control means which are coupled between the mass spectrometer endpoint detection device, and the cmp polishing platen to automatically terminate the cmp polishing process upon detection of the endpoint of the cmp polishing process

It would have been obvious to one skilled in the art to employ control means which are coupled between the mass spectrometer endpoint detection means, and the cmp polishing platen in any of the cmp polishing apparatuses taught above to automatically terminate the cmp polishing process upon detection of the endpoint of the cmp polishing process based upon the following. It is conventional or at least well known in the cmp polishing arts to employ automatic means which are coupled between an endpoint detection means, and the cmp polishing platen to automatically terminate the cmp polishing process upon the detection of the cmp polishing process. (The examiner takes official notice in this regard.) Further, the usage of such control means simply

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involves the usage of an alternative, and at least equivalent means for controlling a cmp polishing process to the specific means which are taught above (i.e.-manual means). The examiner cites the case law listed below of interest to the applicant in this regard.

In re Venner (120 U.S.P.Q. 192 (CCPA )) states that it is not an "invention" to broadly provide mechanical or automatic means to replace manual activity which has accomplished the same results.

17. Claims 68-72, 78-79, and 81-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied in paragraph 16 above further in view of either (Robinson et. al. (5,868,896) or Sandhu et. al. (5,700,180)).

The references as applied in paragraph 16 above fail to disclose the following aspects of applicant's claimed invention:

-the specific usage of automatic control means which are coupled between the mass spectrometer endpoint detection device, and the cmp polishing platen to automatically terminate the cmp polishing process upon detection of the endpoint of the cmp polishing process

Robinson et. al. teach that it is desirable to monitor the thickness of a film to be cmp polished on a wafer insitu, and to automatically terminate the cmp polishing process upon detection of the endpoint using automatic control means. This is discussed specifically in columns 2-3, 8; and discussed in general in columns 1-12. This is shown in figures 1-9.

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Sandu et. al. teach that it is desirable to monitor the thickness of a film to be cmp polished on a wafer insitu, and to automatically terminate the cmp polishing process upon detection of the endpoint using automatic control means. This is discussed specifically in columns 7-10, 14-15; and discussed in general in columns 1-16. This is shown in figures 1-17.

It would have been obvious to one skilled in the art to employ control means which are coupled between the mass spectrometer endpoint detection means, and the cmp polishing platen in any of the cmp polishing apparatuses taught above to automatically terminate the cmp polishing process upon detection of the endpoint of the cmp polishing process based upon the following.

Both Sandu et. al., and Robinson et. al. teach that it is desirable to do so.

18. Applicant's arguments filed 4-14-03' have been fully considered but they are not persuasive.

Applicant argues the following points regarding the examiner's rejection of their claimed subject matter.

-None of the references used by the examiner to reject applicant's claimed subject matter specifically disclose the usage of automatic control means which are coupled between the mass spectrometer endpoint detection device, and the cmp polishing platen to automatically terminate the cmp polishing process upon detection of the endpoint of the cmp polishing process. Further, there is no motivation in the prior art of record to modify the prior art to incorporate such control means to do such.

The examiner must disagree.

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-The examiner has cited case law of interest to the applicant which render it obvious to use such automatic control means to automatically terminate the cmp polishing process in the cmp polishing apparatuses taught above upon detection of the cmp polishing endpoint.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner George A. Goudreau whose telephone number is (703) -308-1915. The examiner can normally be reached on Monday through Friday from 9:30 to 6:00.

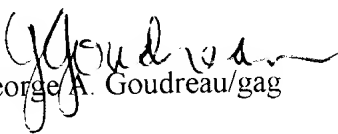
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Examiner Gregory Mills, can be reached on (703) -308-1633. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) -306-3186.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) -308-0661.

  
George A. Goudreau/gag

Primary Examiner

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